Remarks/Arguments

Claims 1-9 are pending in the application. By this amendment, claims 1-9 have been canceled and new claims 10-15 have been added.

Applicants believe the amendments made herein add no new matter. Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based on prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to be attached thereto. Reconsideration and reexamination of the application is respectfully requested in view of the following remarks.

Interview Summary

The Applicants kindly thank Examiners Jennison and Ralis for the telephonic interview with the Applicants' representatives on June 14, 2010. During the interview, Applicants' representatives discussed the differences between new claims 10 and 14 and the cited prior art. No agreement regarding patentability was reached during the interview.

Drawings

Applicants have submitted corrected drawings in the attached replacement sheets which illustrate the original drawings in Figure 1-7 in a more legible format. In addition, per the Examiner's request, Applicants have added x and y axis labels to Figures 4-7.

Rejection Under 35 U.S.C. §112

Claims 3 and 7 have been rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The rejection is respectfully traversed.

Claims 3 and 7 have been canceled and therefore, the rejection with respect to claims 3 and 7 is moot.

Claims 1, 3, 7 and 9 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The rejection is respectfully traversed.

Claims 1, 3, 7 and 9 have been canceled and therefore, the rejection with respect to claims 1, 3, 7 and 9 is moot.

Rejection Under 35 U.S.C. §102

Claims 1-7 and 9 have been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,335,293 to Kobayashi et al. The rejection is respectfully traversed.

Claims 1-7 and 9 have been canceled and replaced with new claims 10-15; therefore, the rejection is moot with respect to claim 1-7 and 9. Applicants will discuss the rejection with respect to new claims 10-15.

Kobayashi discloses a method for determining a cooking time of a food item in a microwave oven as a function of the type of food and the measured humidity. Kobayashi discloses counting the amount of time it takes for the measured humidity to rise from a minimum point by a predetermined amount, Δh. The cooking process can continue by some amount of time proportional to k multiplied by the time it took to reach the predetermined Δh, with k being a constant that is dependent on the type of food. *Kobayashi, Col. 3, ln. 27-Col. 4, ln. 14.* Because the resistance of the humidity sensor changes as a logarithmic function of the humidity, the sensor voltage varies over several orders of magnitude depending on the type of sensor used, the weather and other conditions. *Kobayashi, Col. 4, ln. 41-52.* A method for filtering the voltage signal from the sensor can comprise logarithmically amplifying the measured voltage signal to produce a converted voltage signal such that the amount of time it takes for the voltage to rise by a given voltage increment varies only slightly under various conditions. *Kobayashi, Col. 4, ln. 67-Col. 5, ln. 11.*

New claim 10 calls for a domestic oven comprising a central processing unit configured to receive and filter the signal from the gas sensor, with an amplitude of filtering depending on the type of food set by the user, to determine a cooking time of the food and to control the operation of the heating element as a function of the determined cooking time and at least one of the type of food and the desired degree of cooking set by the user. Support for filtering the gas sensor signal with an amplitude of the filtering depending on the type of food set by the user can be found in the ¶[0020] of the published application. For example, the signal from the gas sensor can be filtered by applying a moving window filter with an amplitude equal to 30 samples, which is dependent on the food type. *Published Application, ¶[0020].*

The claimed invention is not anticipated under §102 unless each and every element of the claimed invention is found in the prior art. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81, 90 (Fed. Cir. 1986). To anticipate, a single reference must teach each and every

limitation of the claimed invention. *Eolas Technologies Inc. v. Microsoft Corp., 399 F.3d 1325, 1335; 73 U.S.P.Q.2D (BNA) 1782 (Fed. Cir. 2005).* The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co., 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).* The rejection fails to satisfy these standards.

Kobayashi does not disclose a central processing unit configured to receive and filter the signal from the gas sensor, with an amplitude of the filtering depending on the type of food set by the user as set forth in new claim 10. Because Kobayashi does not disclose filtering a signal from a gas sensor with an amplitude of the filtering depending on the type of food as set forth in new claim 10, Kobayashi cannot anticipate new claim 10 and the rejection must fail.

Therefore, new claim 10 is patentable over Kobayashi. Claims 11-13, which depend from new claim 10, are patentable for at least the same reasons as new claim 10.

Rejection Under 35 U.S.C. §103

Claim 8 has been rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,335,293 to Kobayashi et al. in view of U.S. Patent No. 6,538,240 to Shon et al. The rejection is respectfully traversed.

Claim 8 has been canceled and replaced with new claim 14; therefore, the rejection with respect to claim 8 is moot. Applicants will discuss the rejection with respect to new claim 14.

Shon discloses a method for determining a cooking time in a microwave oven based on a measured humidity by determining a first cooking time T1 based on an amount of time for the difference *K* between the sum of preceding humidity values and the sum of currently sampled humidity values being greater than a reference value. A second cooking time T2 is then calculated by multiplying the first cooking time by a factor preset according to the kind of food and the cooking operation can be finished when the end of the second cooking time T2 has been reached. *Shon, Col. 5, ln. 12-20.* Alternatively, the end of the first cooking time T1 and subsequently the start of the second cooking time T2 can be determined based on the difference between adjacent humidity values or when the slope calculated for adjacent humidity values reaches a predetermined value. *Shon, Col. 5, ln. 54-65.*

New claim 14 calls for a method for automatic cooking comprising processing a signal from the gas sensor according to a function of the type F(t) in which α and β are coefficients obtained experimentally for the set food type, determining a gradient of the function F(t) and

determining a cooking time of the food as a function of the determined gradient of the function F(t). Support for determining a gradient of the function F(t) and determining a cooking time as a function of the gradient of function F(t) can be found in ¶[0025]-¶[0029] of the published application. For example, the gradient of the function F(t) can be determined using the function P(t) and the value of the function P(t) can be compared with experimentally determined values to determine the cooking time. *Published Application, ¶[0027]-[0029] and associated table.*

Shon discloses nothing more than Kobayashi in which a first measured time to reach a predetermined value indicative of humidity measurements, Δh in the case of Kobayashi and K in the case of Shon, is multiplied by some constant dependent on the food type to determine a cooking time. Neither Kobayashi nor Shon disclose processing a signal from the gas sensor according to a function of the type F(t) in which α and β are coefficients obtained experimentally for the set food type, determining a gradient of the function F(t) and determining a cooking time of the food as a function of the determined gradient of the function F(t), as set forth in new claim 14. Therefore, any combination of Kobayashi and Shon, however they might be combined, would fail to disclose processing a signal from the gas sensor according to a function of the type F(t) in which α and β are coefficients obtained experimentally for the set food type, determining a gradient of the function F(t) and determining a cooking time of the food as a function of the determined gradient of the function F(t), as set forth in new claim 14.

The methods of both Kobayashi and Shon are based solely on determining first and second time periods of a total cooking time with the second time period calculated as a function of the first time period. Neither Kobayashi nor Shon disclose analyzing a gas sensor signal according to Applicants' function F(t) in which the coefficients α and β are obtained experimentally for the set food type. Because neither Kobayashi nor Shon disclose processing a gas sensor signal according to the function F(t) of new claim 14, inherently, their combination cannot have any disclosure relevant to determining a gradient of the function F(t) and determining a cooking time of the food as a function of the determined gradient, as further set forth in new claim 14.

Because both Kobayashi and Shon, and the resulting combination, are silent regarding processing a signal from the gas sensor according to a function of the type F(t) in which α and β are coefficients obtained experimentally for the set food type, determining a gradient of the

function F(t) and determining a cooking time of the food as a function of the determined gradient of the function F(t), as set forth in new claim 14, new claim 14 cannot be obvious to one of ordinary skill in the art based on the combination of Kobayashi and Shon and the rejection must fail.

Therefore, new claim 14 is patentable over the combination of Kobayashi and Shon. Claim 15, which depends from new claim 14, is patentable for at least the same reasons as new claim 14.

Conclusion

Applicants submit that all of the claims remaining in the application are allowable over the prior art of record. Early notification of allowability is respectfully requested. If there are any remaining issues which the Examiner believes may be resolved in an interview, the Examiner is respectfully invited to contact the undersigned attorney.

Respectfully submitted,

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